



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,594	02/25/2005	Ramil N. Vasquez	GB02 0184 US	7944
65913	7590	12/14/2007	EXAMINER	
NXP, B.V.			MEHTA, MEGHA S	
NXP INTELLECTUAL PROPERTY DEPARTMENT				
M/S41-SJ			ART UNIT	PAPER NUMBER
1109 MCKAY DRIVE				4116
SAN JOSE, CA 95131				
			NOTIFICATION DATE	DELIVERY MODE
			12/14/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/525,594	VASQUEZ ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	MEGHA MEHTA	4116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 15 November 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-3 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-3 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>02/25/05</u> .	6) <input type="checkbox"/> Other: _____ .

## **DETAILED ACTION**

### ***Election Acknowledged***

1. Applicant's election filed on 11/15/2007 for the invention of group I, claims 1-3, is acknowledged. As stated in applicant's response, claims 1-3 read on the elected invention. Thus, the elected claims 1-3 will be presented for examination.

Applicant's election is made without traverse and thus, the restriction requirement is deemed to be proper and has been made final.

### ***Status of the Application***

2. Claims 1-3 are pending in the application and have been presented for examination.
3. Claims 4-12 have been cancelled.

### ***Priority***

4. Acknowledgement is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The application is given the priority date of 08/28/2002.

### ***Information Disclosure Statement***

4. The information disclosure statement (IDS) was submitted on 2/25/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the IDS is being considered by the examiner. Please refer to the applicant's copy of the 1449 submitted herewith.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,813,006 Holze, Jr. et al.

Independent claim 1 is drawn to a method of wedge-bonding wires where a wedge-bonding tool has wedge-bonding tips at both ends of the tool such that after the use and wear of one tip, the other tip may be used. Holze teaches replaceable welding tips for a wedge-bonding tool in column 5, lines 23 and 34. The claim differs from Holze in that Holze does not teach tips on both ends of the tool. However, it would have been obvious to one of ordinary skill at the time of the invention to have tips on both ends of the tool because having two tips is a minor variation to the tool of one tip. Additionally, it is functionally equivalent to the replaceable tips and therefore is deemed to be obvious to one of ordinary skill.

It would have been obvious to one of ordinary skill to make this modification because one tip on each end is a minor variation to replaceable tips. One would have been motivated to make this modification because of the material saved by reusing the tool.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,813,006 Holze, Jr. et al. as applied to claim 1 above, and further in view of US 3,627,192 Killingsworth.

Claim 2 is drawn to the method of wedge-bonding described above where the claim further requires a tungsten-carbide shank with the tips at opposite ends of the shank. Killingsworth teaches the tungsten carbide shank in column 2, lines 21-23, but fails to teach the tips at opposite ends of the shank. However, this would have been obvious to one of ordinary skill at the time of the invention based on the explanation above. Placing tips at opposite ends of the shank is an obvious and minor variation to replaceable tips at one end of the shank.

It would have been obvious to one of ordinary skill at the time of the invention to make this modification because the Killingsworth reference is drawn to wire bonding tools. One would have been motivated to make this modification because of the advantageous properties of a tungsten carbide shank.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,813,006 Holze, Jr. et al. as applied to claim 1 above, and further in view of US 5,702,049 Biggs et al.

Claim 3 is drawn to the method of wedge-bonding wires described above where the claim further requires aluminum or gold wires ultrasonically bonded. Biggs teaches a transducer coupled to the tool bonding aluminum or gold wires in column 7, lines 15 and 65, and shown in figure 4.

It would have been obvious to one of ordinary skill to make this modification because both Holze and Biggs teach wire bonding tools. One would have been motivated to make this modification because of the functional capabilities of an ultrasonic transducer.

***Conclusion***

1. No claim is allowed.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MEGHA MEHTA whose telephone number is (571)270-3598.

The examiner can normally be reached on Monday to Friday 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on 571-272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Megha Mehta  
Art Unit 4116

/Vickie Kim/  
Supervisory Patent Examiner, Art Unit 4116